

# Performance Review Body Monitoring Report

SES RP3 - 2022

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## 1 OVERVIEW

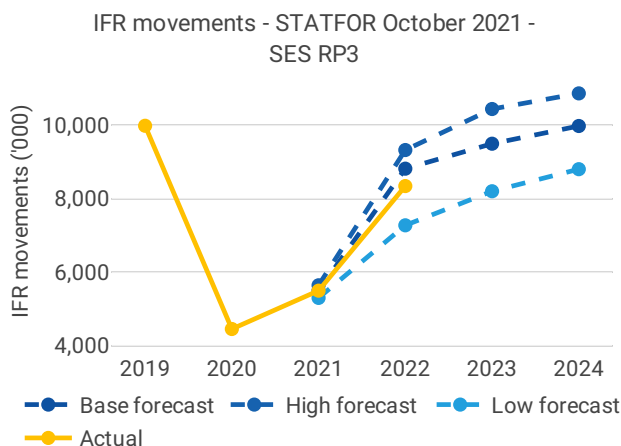
### 1.1 Contextual information

<b>No of ACCs</b>	49	<b>Share en route / terminal costs 2022</b>	83% / 17%	<b>No of main ANSPs</b>	29
<b>No of airports in the scope of the performance plan:</b>		<b>En route charging zone(s)</b>	29	<b>No of other ANSPs</b>	14
• <b>≥80'K</b>	42	<b>Terminal charging zone(s)</b>	26	<b>No of MET Providers</b>	26
• <b>&lt;80'K</b>	103				

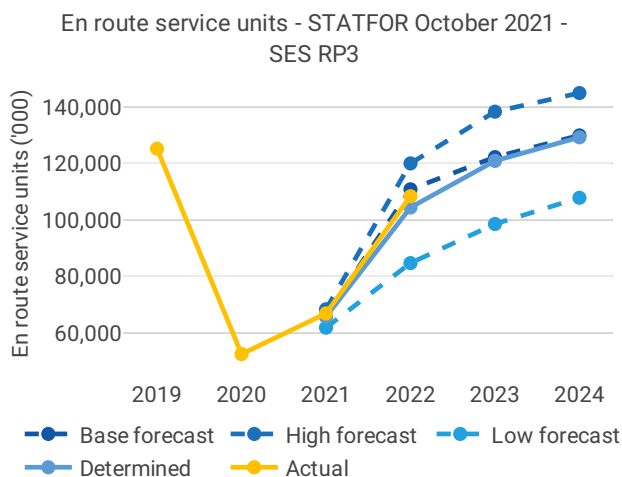
### 1.2 Main PRB findings - 2022

2022 was characterised by the post COVID-19 rebound of traffic, +52% compared to 2021, and the impacts on some of the SES Member States of Russia's war of aggression against Ukraine. Union-wide performance shows that a majority of ANSPs did not take the opportunity to prepare for the forecast traffic rebound by implementing the necessary and planned measures to provide capacity and improve environmental performance. This resulted in en route ATFM delays well above the targets and contributed to horizontal flight inefficiency being the highest since 2016. The situation in Ukraine can only partially (and locally) explain these results. Neither does the drop in traffic due to COVID-19 pandemic explain this under performance, as ANSPs in total spent less than foreseen in their performance plans and, in any event, could recover the bulk of the foregone revenue in future years. On a positive note, safety management performance remained solid.

### 1.3 Traffic (SES RP3 area)

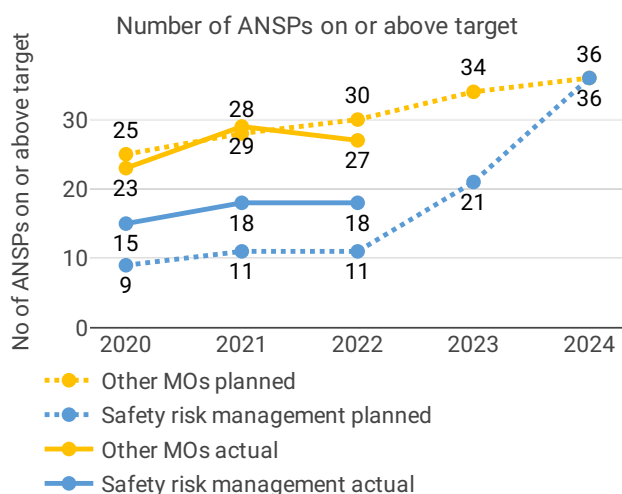


- 8,345 IFR movements were recorded in 2022 at SES level, +52% compared to 2021 (5,499K).
- Actual 2022 IFR movements represent 84% of the actual 2019 level (9,985K).



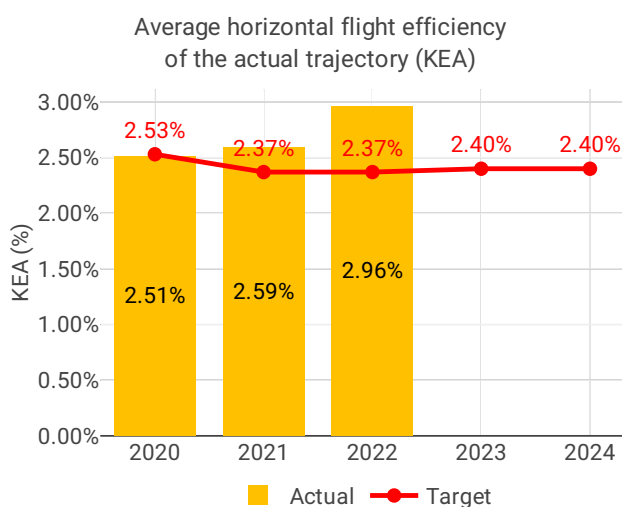
- 108,380K service units were recorded in 2022 at SES level, +62% compared to 2021 (66,893K).
- Actual 2022 service units were +3.8% above the plan (104,405K).
- Actual 2022 service units represent 87% of the actual 2019 level (125,158K).

#### 1.4 Safety (SES RP3 area)



- Safety levels overall remained at pre-COVID-19 pandemic levels.
- 16 ANSPs already achieved the RP3 targets for the effectiveness of safety management for all Management Objectives (two years before the end of RP3). The remaining 20 ANSPs are expected to meet the targets by the end of RP3.
- The rate of accidents and incidents remained in line with the trend over the past 10 years, continuously decreasing.

#### 1.5 Environment (SES RP3 area)

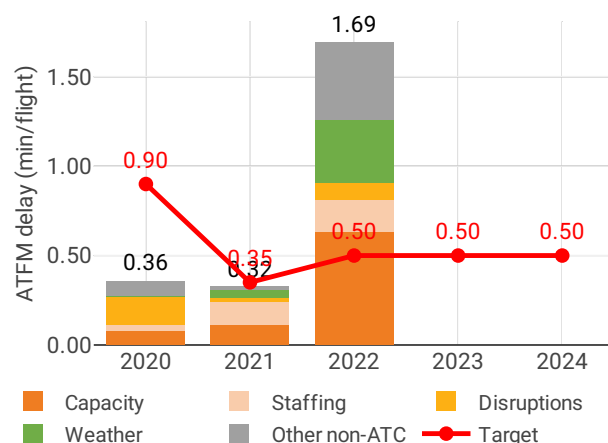


- Union-wide horizontal flight efficiency (KEA) performance targets were not achieved in 2022 and performance was at the worst levels since 2016. 25 Member States did not achieve their national/FAB targets.
- Horizontal flight efficiency deteriorated due to considerable capacity constraints, route extensions due to the closure of Ukrainian and Russian airspaces to European carriers following the Russian war of aggression against the Ukraine, and the continued avoidance of Belarusian airspace (since May 2021).

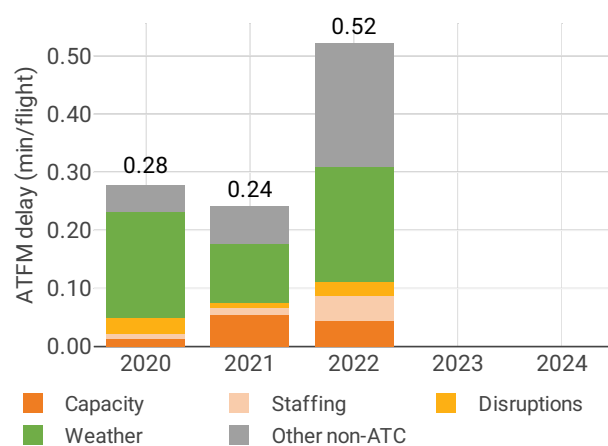
• For terminal airspace, both additional ASMA (holding) time and additional taxi-out time increased. Combined this shows a +28.9% increase compared to 2021, mainly driven by taxi-out performance. However, it is worth noting that performance remains better than 2019 levels.

## 1.6 Capacity (SES RP3 area)

Average en route ATFM delay per flight by delay groups



Average arrival ATFM delay per flight by delay groups



- The actual Union-wide average en route ATFM delay was 1.74 minutes per flight in 2022, 1.24 minutes per flight higher than the Union-wide target, and even higher than in 2019, despite less IFR movements.

- The European Commission adjusted the monitored value to 1.69, taking into account the delays due to the exceptional event relating to Russia's war of aggression against Ukraine. The adjusted actual value is 1.19 minutes per flight higher than the Union-wide target.

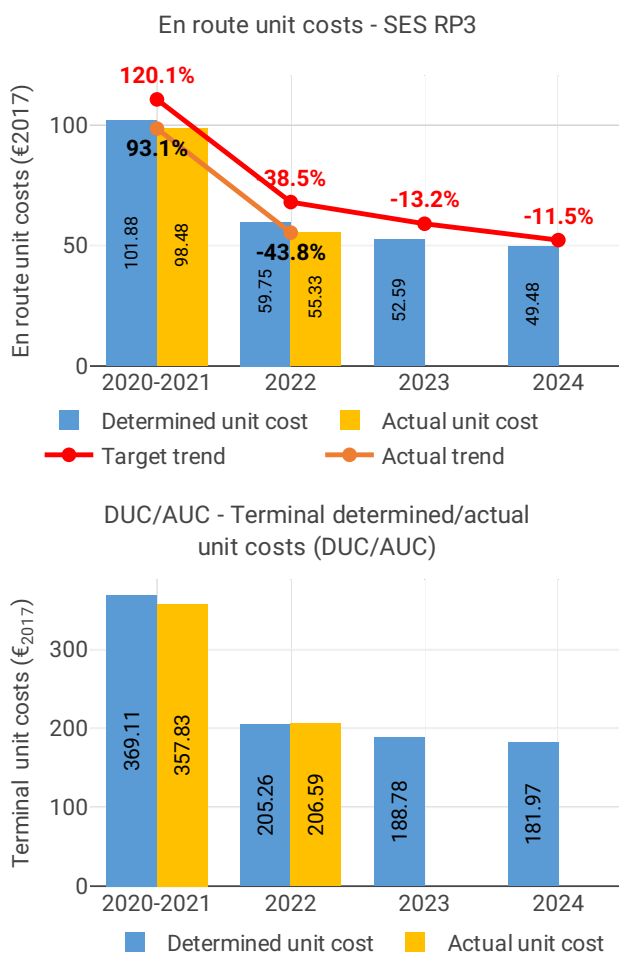
- 11 Member States did not achieve their local targets, indicating that most of the ANSPs did use the COVID-19 period to undertake the necessary initiatives to provide capacity to support the expected post-COVID-19 pandemic growth in traffic (as highlighted in last year PRB monitoring report).

- Terminal capacity performance deteriorated compared to 2021, mostly due to disruptions and airport-related capacity problems. All-cause departure delays were at a stunning 19.03 minutes per flight.

- Some ANSPs were not ready for the traffic recovery and network disruptions caused by system transitions. The impact of Russia's war of aggression against Ukraine also had an adverse effect. If ANSPs cannot implement capacity improvement

measures as planned, and/or can-not deploy new systems without major disruptions, 2023 is expected to show even higher delays.

## 1.7 Cost-efficiency (SES RP3 area)



- In 2022, Member States met the en route cost-efficiency Union-wide target.

- Union-wide en route actual costs in 2022 were 3.9% below determined costs, while service units were 3.9% higher than planned. However, the decrease in costs is mainly attributable to a significantly higher inflation than forecasted.

- 25 Member States showed lower actual total costs compared to planned in 2022, of which 19 lower by more than 5%. Only one Member State, Spain, increased its costs by more than 5% compared to the determined.

- The en route actual unit cost for airspace users (AUCU) has been +2.4% higher than the determined unit cost, since inflation was higher than expected.

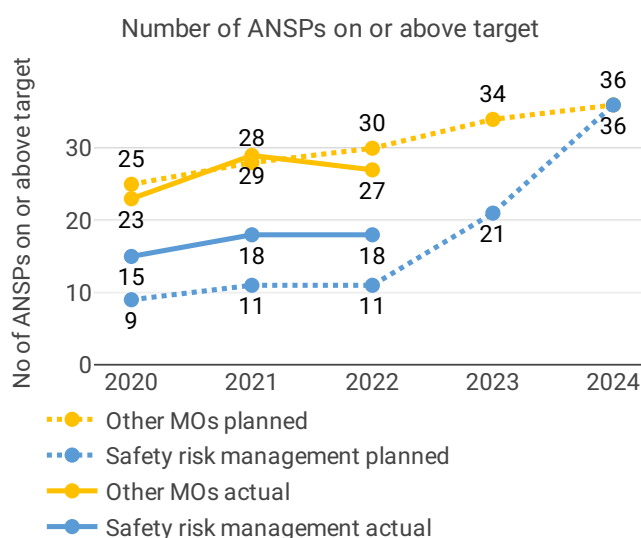
- The 2020/2021 revenue gap amounts to 5.7B €2017. An additional gap of 2.7 M€2017 originates from 2022 when States had revised their plans after the adoption of their 2022 unit rate. The total revenue gap will be recovered over a five to seven year period, starting from 2023.

## 2 SAFETY - SES RP3

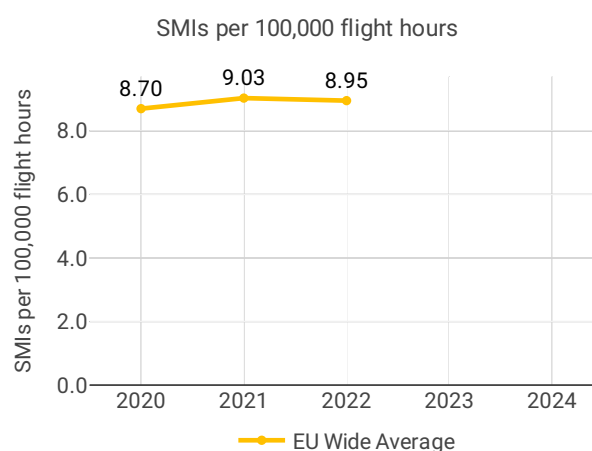
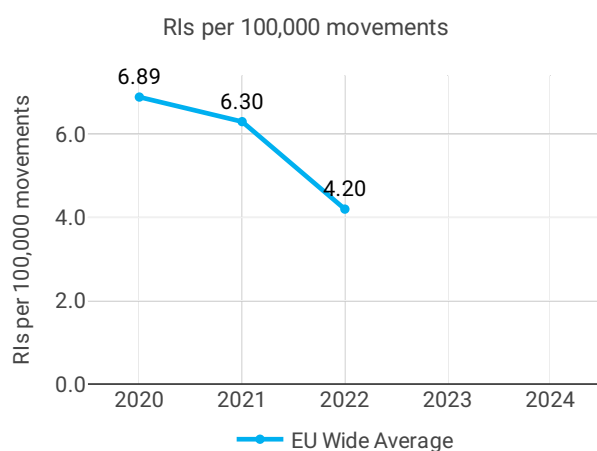
### 2.1 PRB monitoring

- Safety levels overall remained at pre-COVID-19 pandemic levels.
- 16 ANSPs already achieved the RP3 targets for the effectiveness of safety management for all Management Objectives (two years before the end of RP3). The remaining 20 ANSPs are expected to meet the targets by the end of RP3.
- The rate of accidents and incidents remained in line with the trend over the past 10 years, continuously decreasing.

### 2.2 Actual versus planned number of ANSPs achieving the level of the EoSM targets for RP3 ahead of 2024



### 2.3 Occurrences - Rate of runway incursions (RIs) (PI#1) & Rate of separation minima infringements (SMIs) (PI#2)



### 3 ENVIRONMENT - SES RP3

#### 3.1 PRB monitoring

- Union-wide horizontal flight efficiency (KEA) performance targets were not achieved in 2022 and performance was at the worst levels since 2016. 25 Member States did not achieve their national/FAB targets.
- Horizontal flight efficiency deteriorated due to considerable capacity constraints, route extensions due to the closure of Ukrainian and Russian airspaces to European carriers following the Russian war of aggression against the Ukraine, and the continued avoidance of Belarus-ian airspace (since May 2021).
- For terminal airspace, both additional ASMA (holding) time and additional taxi-out time in-creased. Combined this shows a +28.9% increase compared to 2021, mainly driven by taxi-out performance. However, it is worth noting that performance remains better than 2019 levels.

#### 3.2 En route performance

##### 3.2.1 Horizontal flight efficiency of the actual trajectory (KEA) (KPI#1), of the last filed flight plan (KEP) (PI#1) & shortest constrained route (SCR) (PI#2)



### 3.2.2 Summary of performance at local level

KEA (%)		
State	Target	Actual
Austria	1.96	2.13 X
Belgium	3.05	3.55 X
Bulgaria	2.25	3.31 X
Croatia	1.46	1.53 X
Cyprus	3.84	4.24 X
Czech Republic	2.05	2.59 X
Denmark	1.14	1.23 X
Estonia	1.22	5.39 X
Finland	0.88	3.27 X
France	2.83	3.29 X
Germany	2.30	2.79 X
Greece	1.92	2.36 X
Hungary	1.49	2.19 X
Ireland	1.13	1.13 ✓
Italy	2.67	3.01 X
Latvia	1.25	6.16 X
Lithuania	1.92	11.99 X
Malta	1.80	1.92 X
Netherlands	2.62	3.09 X
Norway	1.55	1.35 ✓
Poland	1.65	4.76 X
Portugal	1.80	1.55 ✓
Romania	2.05	3.37 X
Slovakia	2.13	4.04 X
Slovenia	1.55	1.76 X
Spain	3.08	3.33 X
Sweden	1.05	1.71 X
Switzerland	3.95	4.55 X

## 4 CAPACITY - SES RP3

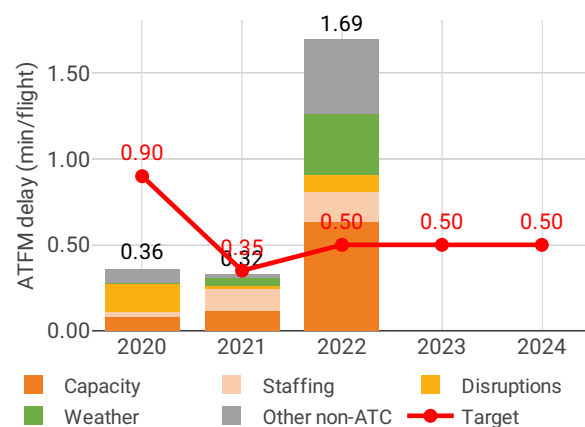
### 4.1 PRB monitoring

- The actual Union-wide average en route ATFM delay was 1.74 minutes per flight in 2022, 1.24 minutes per flight higher than the Union-wide target, and even higher than in 2019, despite less IFR movements.
- The European Commission adjusted the monitored value to 1.69, taking into account the delays due to the exceptional event relating to Russia's war of aggression against Ukraine. The adjusted actual value is 1.19 minutes per flight higher than the Union-wide target.
- 11 Member States did not achieve their local targets, indicating that most of the ANSPs did use the COVID-19 period to undertake the necessary initiatives to provide capacity to support the expected post-COVID-19 pandemic growth in traffic (as highlighted in last year PRB monitoring report).
- Terminal capacity performance deteriorated compared to 2021, mostly due to disruptions and airport-related capacity problems. All-cause departure delays were at a stunning 19.03 minutes per flight.
- Some ANSPs were not ready for the traffic recovery and network disruptions caused by system transitions. The impact of Russia's war of aggression against Ukraine also had an adverse effect. If ANSPs cannot implement capacity improvement measures as planned, and/or cannot deploy new systems without major disruptions, 2023 is expected to show even higher delays.

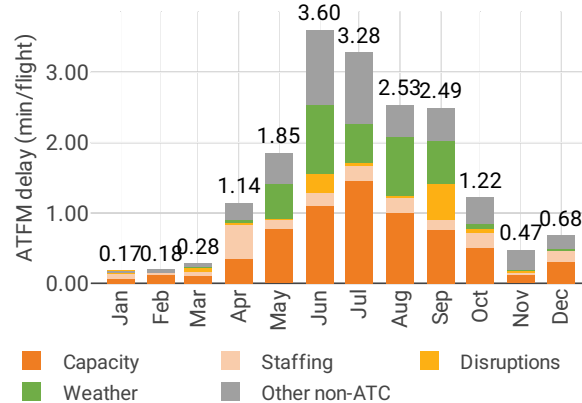
## 4.2 En route performance

### 4.2.1 En route ATFM delay (KPI#1)

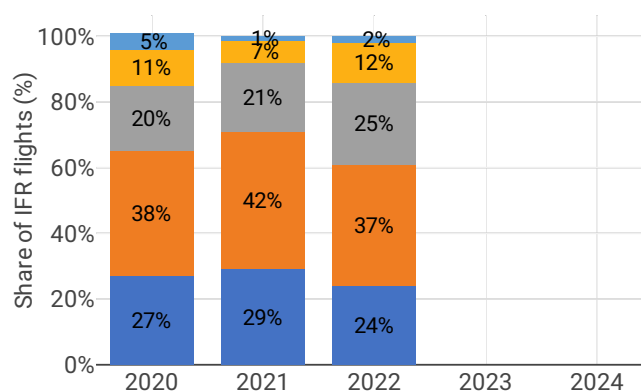
Average en route ATFM delay per flight by delay groups



Monthly distribution of en route ATFM delay by delay groups - 2022



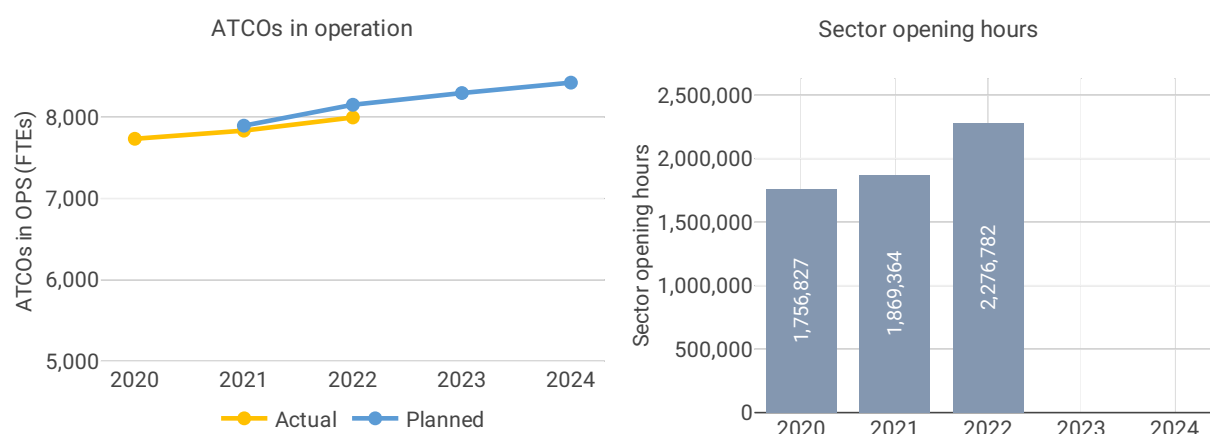
Distribution of IFR flights per the duration of en route ATFM delay



## 4.2.2 Summary of performance at local level

En route delay (min/flight)		
State	Target	Actual
Austria	0.17	0.07 ✓
Belgium	0.17	0.13 ✓
Bulgaria	0.08	0.00 ✓
Croatia	0.16	0.57 ✗
Cyprus	0.16	0.00 ✓
Czech Republic	0.11	1.33 ✗
Denmark	0.06	0.00 ✓
Estonia	0.03	0.00 ✓
Finland	0.05	0.00 ✓
France	0.25	1.49 ✗
Germany	0.27	2.20 ✗
Greece	0.14	0.15 ✗
Hungary	0.11	0.54 ✗
Ireland	0.03	0.00 ✓
Italy	0.11	0.15 ✗
Latvia	0.03	0.00 ✓
Lithuania	0.02	0.00 ✓
Malta	0.01	0.00 ✓
Netherlands	0.14	0.04 ✓
Norway	0.08	0.01 ✓
Poland	0.12	1.09 ✗
Portugal	0.13	0.67 ✗
Romania	0.04	0.00 ✓
Slovakia	0.07	0.00 ✓
Slovenia	0.09	0.00 ✓
Spain	0.20	0.30 ✗
Sweden	0.07	0.04 ✓
Switzerland	0.19	0.21 ✗

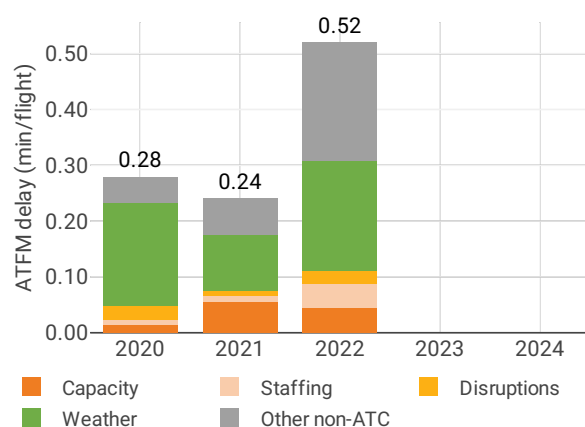
## 4.2.3 Other indicators



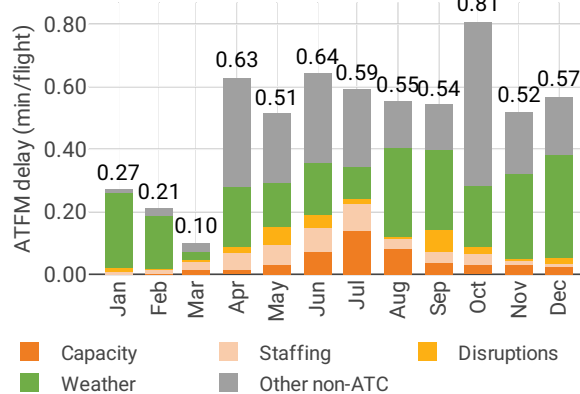
## 4.3 Terminal performance

### 4.3.1 Arrival ATFM delay (KPI#2)

Average arrival ATFM delay per flight by delay groups



Monthly distribution of arrival ATFM delay by delay groups - 2022

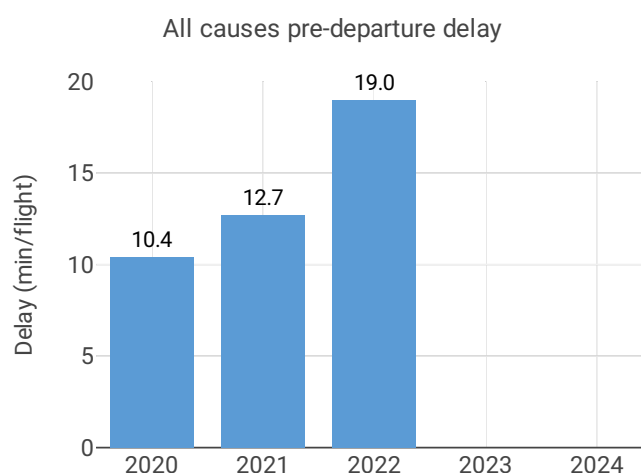


### 4.3.2 Summary of performance at local level

Arrival delay (min/flight)

State	Target	Actual
Austria	0.87	0.15 ✓
Belgium	1.08	0.11 ✓
Bulgaria	NA	
Croatia	NA	
Cyprus	NA	
Czech Republic	0.40	0.13 ✓
Denmark	0.10	0.02 ✓
Estonia	0.00	0.00 ✓
Finland	0.28	0.06 ✓
France	0.40	0.62 ✗
Germany	0.45	0.28 ✓
Greece	0.70	1.64 ✗
Hungary	0.05	0.00 ✓
Ireland	0.20	0.15 ✓
Italy	0.33	0.07 ✓
Latvia	0.02	0.00 ✓
Lithuania	NA	
Luxembourg	0.05	0.10 ✗
Malta	0.01	0.00 ✓
Netherlands	1.60	1.78 ✗
Norway	0.50	0.10 ✓
Poland	0.21	0.04 ✓
Portugal	1.91	2.31 ✗
Romania	0.39	0.01 ✓
Slovakia	NA	
Slovenia	NA	
Spain	0.66	0.48 ✓
Sweden	0.15	0.09 ✓
Switzerland	1.15	0.74 ✓

### 4.3.3 Other terminal performance indicators (PI#1-3)

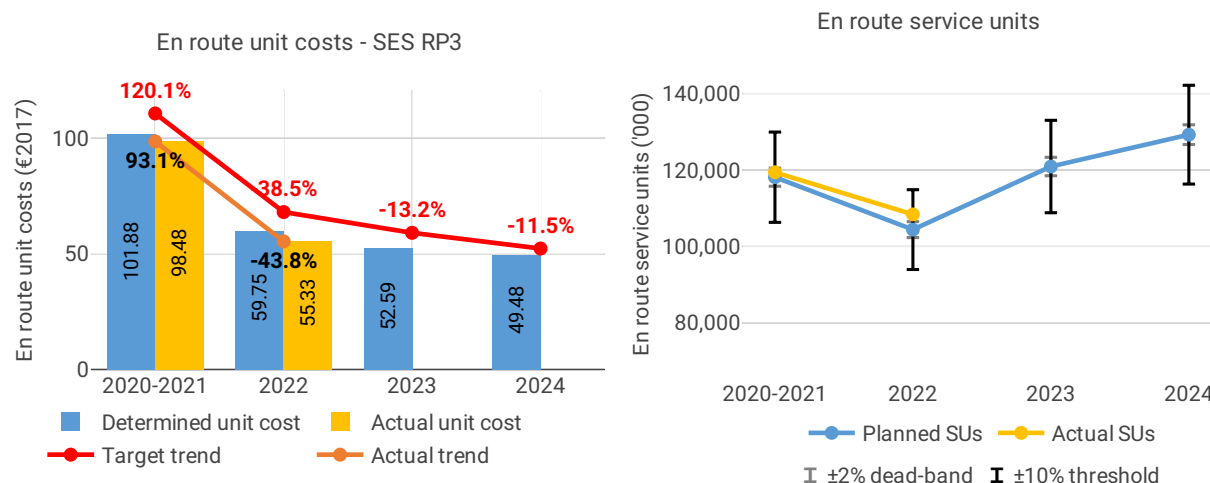


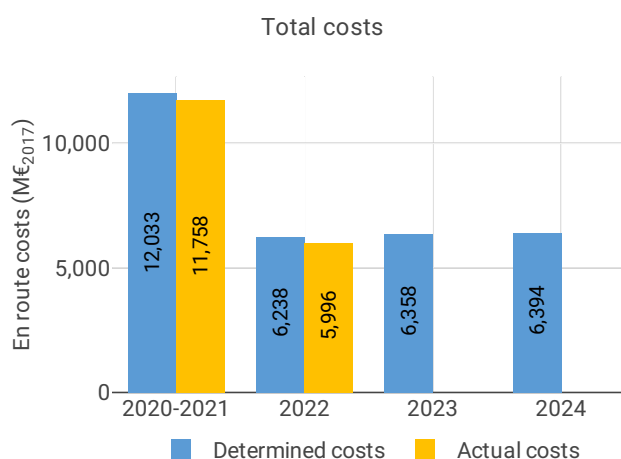
## 5 COST-EFFICIENCY - SES RP3

### 5.1 PRB monitoring

- In 2022, Member States met the en route cost-efficiency Union-wide target.
- Union-wide en route actual costs in 2022 were 3.9% below determined costs, while service units were 3.9% higher than planned. However, the decrease in costs is mainly attributable to a significantly higher inflation than forecasted.
- 25 Member States showed lower actual total costs compared to planned in 2022, of which 19 lower by more than 5%. Only one Member State, Spain, increased its costs by more than 5% compared to the determined.
- The en route actual unit cost for airspace users (AUCU) has been +2.4% higher than the de-termined unit cost, since inflation was higher than expected.
- The 2020/2021 revenue gap amounts to 5.7B €2017. An additional gap of 2.7 M€2017 originates from 2022 when States had revised their plans after the adoption of their 2022 unit rate. The total revenue gap will be recovered over a five to seven year period, starting from 2023.

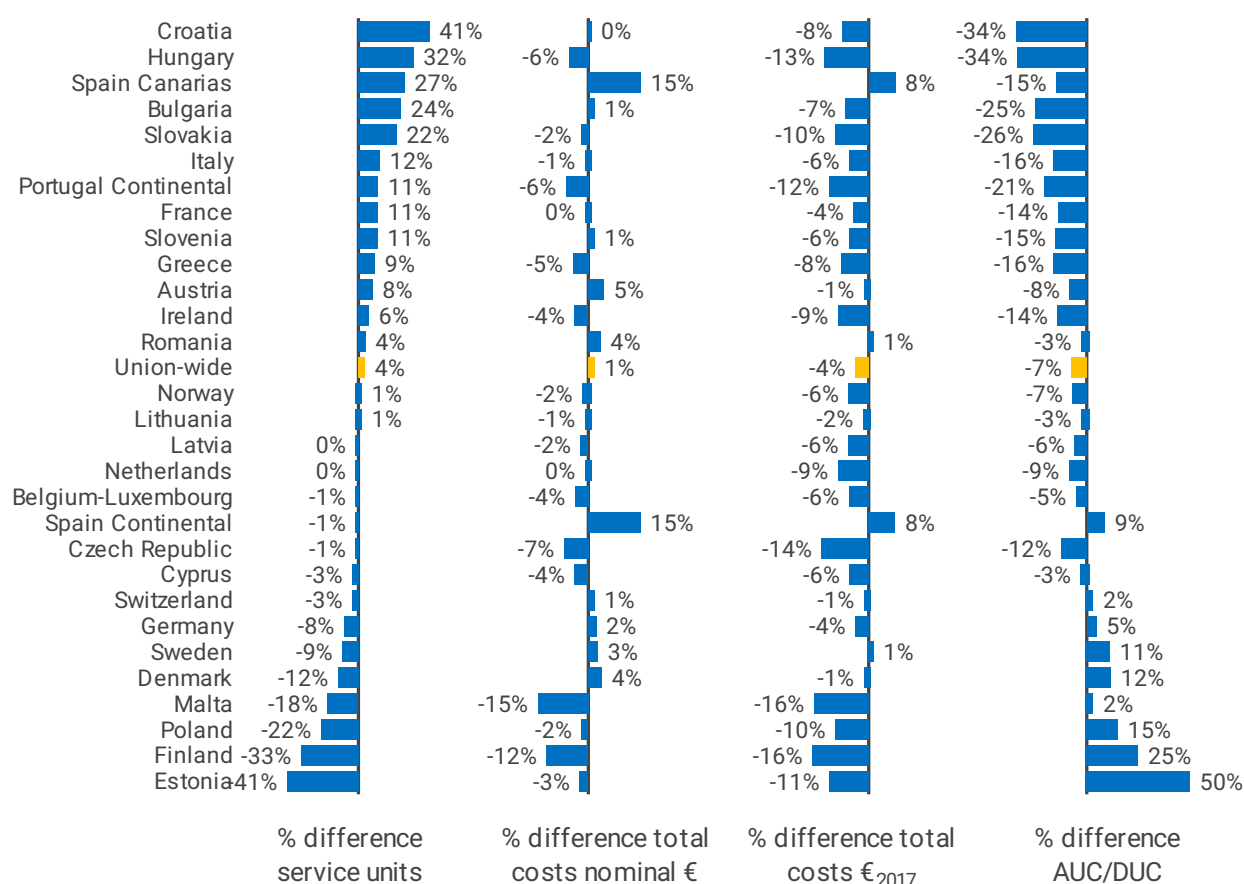
### 5.2 En route charging zone



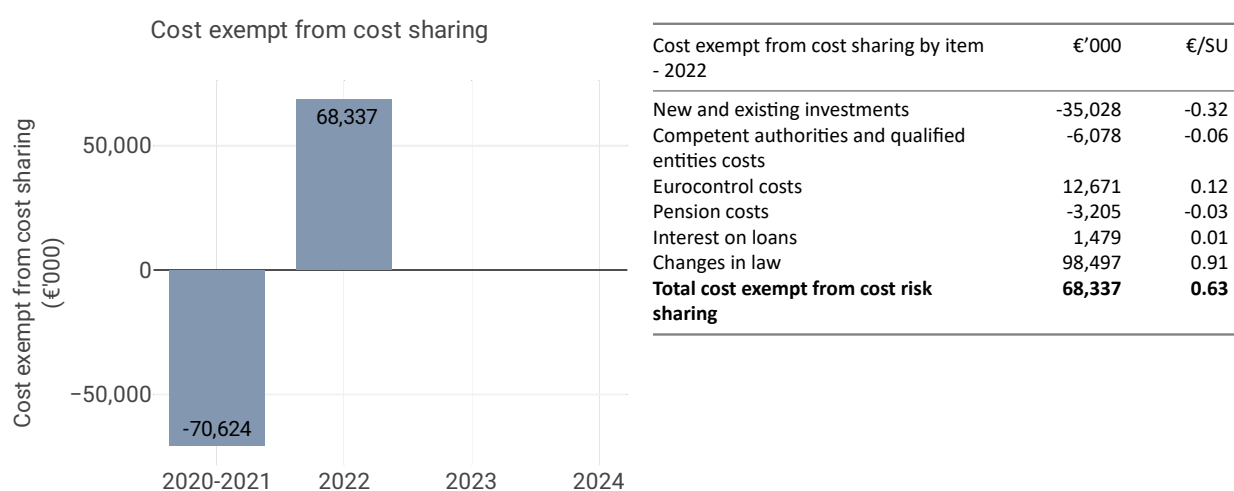
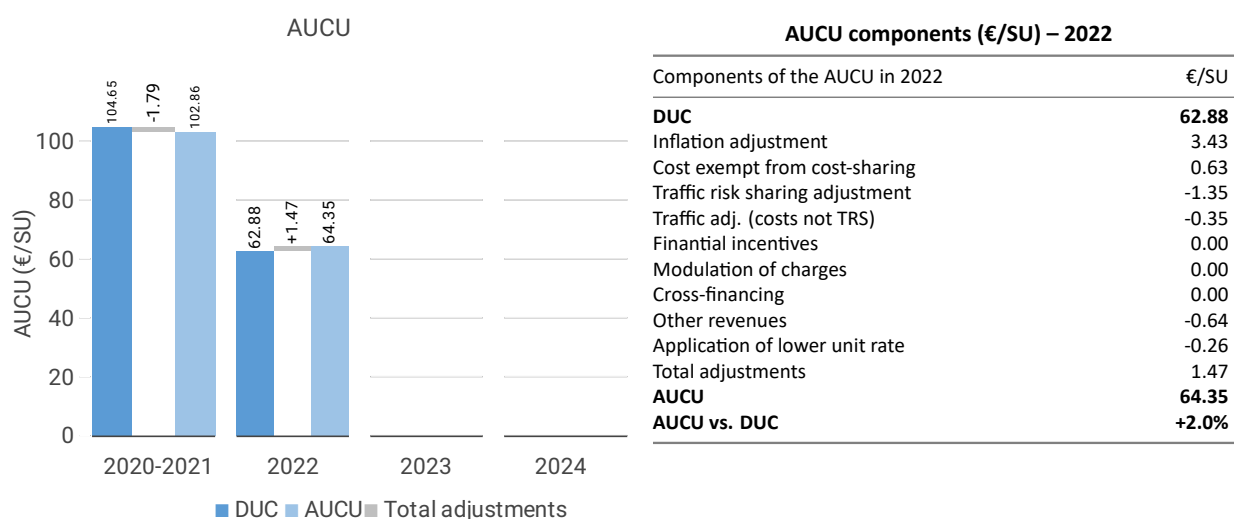


Actual and determined data				
Total costs - nominal (M€)	2020-2021	2022	2023	2024
Actual costs	12,238	6,721	NA	NA
Determined costs	12,476	6,632	6,861	6,988
Difference costs	-238	88	NA	NA

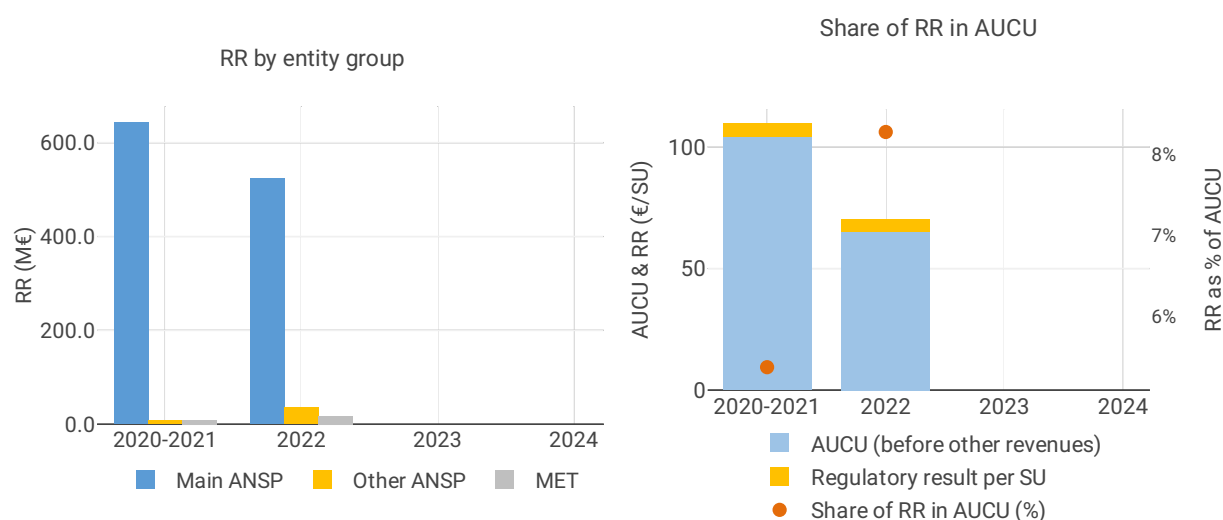
### 5.2.1 Summary of performance at local level



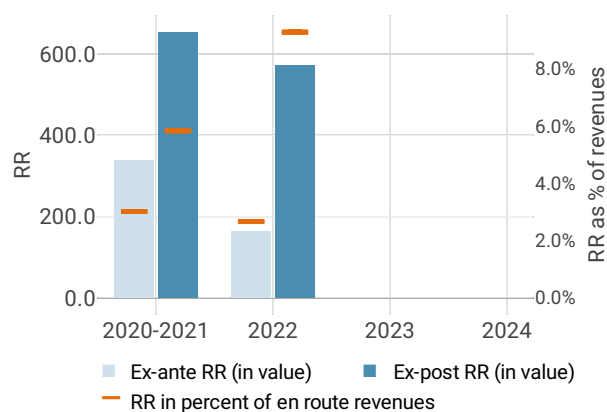
## 5.2.2 Actual unit cost incurred by the users (AUCU) (PI#1)



## 5.2.3 Regulatory result (RR)



RR - Main ANSPs



Net result from en route activity - Main ANSPs 2022

